

Install and Configure Nagios Core on RHEL/CentOS 8.x

Overview

- **Nagios** is the most popular, free, open source, powerful monitoring system.
- It enables organizations to identify and resolve IT infrastructure problems before they affect critical business processes.
- Nagios has the capability of monitoring devices, application, services, entire IT infrastructure.
- Nagios Core is capable of monitoring vastly more complex systems than this, scaling from simple LAN configurations to being the cornerstone for monitoring an entire network.

Nagios is configured using text files and provides an intuitive web interface for administration and monitoring. In case of an issue, service degradation or outage, Nagios will send alerts via Email, SMS or even a phone call if configured to do so.

Configure SELinux in permissive mode:

```
# sed -i 's/SELINUX=.* /SELINUX=permissive/g' /etc/selinux/config
# setenforce 0
```

Step 1: Install dependencies:

```
# dnf groupinstall "Development Tools"
```

```
# dnf install @php:7.4 @perl @httpd wget unzip glibc automake glibc-common
gettext autoconf php php-cli gcc gd gd-devel net-snmp openssl-devel unzip
net-snmp postfix net-snmp-utils
```

After the installation, start and enable httpd and php-fpm services:

```
# systemctl enable --now httpd php-fpm
# systemctl start httpd
# systemctl start php-fpm
```

Confirm services status:

```
# systemctl status httpd php-fpm
```

Step 2: Download Nagios Core:

Check the [releases page](#) for latest Nagios available. Then download and extract Nagios tarball.

```
# cd /opt
# wget https://github.com/NagiosEnterprises/nagioscore/releases/download/nagios-4.4.9/nagios-4.4.9.tar.gz
```

```
# tar -zxvf nagios-4.4.9.tar.gz
# chmod 755 -R nagios-4.4.9
# cd nagios-4.4.9
```

Step 3: Compiling Nagios Core:

1. Run the configure script:

```
# ./configure
# make all
```

2. Create User and Group:

This creates the nagios user and group. The apache user is also added to the nagios group.

```
# make install-groups-users
# usermod -a -G nagios apache
```

3. Install Nagios base.

```
# make install
```

4. Install the init script in `/lib/systemd/system`.

```
# make install-daemoninit

/usr/bin/install -c -m 755 -d -o root -g root /lib/systemd/system
/usr/bin/install -c -m 755 -o root -g root startup/default-service
/lib/systemd/system/nagios.service
Created symlink /etc/systemd/system/multi-
user.target.wants/nagios.service →
/usr/lib/systemd/system/nagios.service.

*** Init script installed ***
```

5. Install and configures permissions on the directory for holding the external command file.

```
# make install-commandmode

/usr/bin/install -c -m 775 -o nagios -g nagios -d
/usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw
*** External command directory configured ***
```

6. Install sample config files in `/usr/local/nagios/etc`.

```
# make install-config

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc
/usr/bin/install -c -m 775 -o nagios -g nagios -d
/usr/local/nagios/etc/objects
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/nagios.cfg /usr/local/nagios/etc/nagios.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.cfg
/usr/local/nagios/etc/cgi.cfg
/usr/bin/install -c -b -m 660 -o nagios -g nagios sample-
config/resource.cfg /usr/local/nagios/etc/resource.cfg
```

```

/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/templates.cfg
/usr/local/nagios/etc/objects/templates.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/commands.cfg
/usr/local/nagios/etc/objects/commands.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/contacts.cfg
/usr/local/nagios/etc/objects/contacts.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/timeperiods.cfg
/usr/local/nagios/etc/objects/timeperiods.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/localhost.cfg
/usr/local/nagios/etc/objects/localhost.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/windows.cfg
/usr/local/nagios/etc/objects/windows.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/printer.cfg
/usr/local/nagios/etc/objects/printer.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-
config/template-object/switch.cfg
/usr/local/nagios/etc/objects/switch.cfg
*** Config files installed ***
Remember, these are SAMPLE config files. You'll need to read
the documentation for more information on how to actually define
services, hosts, etc. to fit your particular needs.

```

17. Install the Apache config file for the Nagios web interface.

```

# make install-webconf

/usr/bin/install -c -m 644 sample-config/httpd.conf
/etc/httpd/conf.d/nagios.conf
if [ 0 -eq 1 ]; then \
    ln -s /etc/httpd/conf.d/nagios.conf /etc/apache2/sites-
enabled/nagios.conf; \
fi
*** Nagios/Apache conf file installed ***

```

8. Installs the Exfoliation theme for the Nagios web interface.

```

# make install-exfoliation
*** Exfoliation theme installed ***
NOTE: Use 'make install-classicui' to revert to classic Nagios theme

```

9. Install the classic theme for the Nagios web interface.

```
# make install-classicui

*** Classic theme installed ***
NOTE: Use 'make install-exfoliation' to use new Nagios theme
```

Step 4: Create Nagios Web user

You need to add a user account for accessing the Nagios web interface. For this, we'll use the `htpasswd` to write to `/usr/local/nagios/etc/htpasswd.users` file.

```
# htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin

New password:
Re-type new password:
Adding password for user nagiosadmin
```

Enter and confirm password for the user. You also need to restart the Apache service for changes to take effect:

```
# systemctl restart httpd
```

Step 5: Install Nagios Plugins

Nagios plugins are used to extend Nagios monitoring features.

```
# cd /opt
```

Download Nagios plugins from [Github releases](https://github.com/nagios-plugins/nagios-plugins/releases) page.

```
# wget https://github.com/nagios-plugins/nagios-
plugins/releases/download/release-2.4.2/nagios-plugins-2.4.2.tar.gz
# tar -zxvf nagios-plugins-2.4.2.tar.gz
```

Change to the plugins source directory:

```
# cd nagios-plugins-2.4.2
```

Compile and install Nagios plugins by running commands below.

```
# ./configure --with-nagios-user=nagios --with-nagios-group=nagios
# make
# make install
```

Step 6: Verify installation and Start Nagios service

Confirm that your Nagios installation was successful and working.

```
# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
Nagios Core 4.4.6
```

Start and enable nagios service to start at boot.

```
# systemctl enable --now nagios
Created symlink /etc/systemd/system/multi-
user.target.wants/nagios.service →
/usr/lib/systemd/system/nagios.service.
```

Service status should indicate running.

```
# touch /var/www/html/index.html
# systemctl status nagios
```

Step 7: Access Nagios Web Dashboard

Allow http and https protocols on the firewall.

```
# firewall-cmd --permanent --add-service={http,https}
# firewall-cmd --reload
```

During installation, an Apache configuration file for Nagios was added. You can access the dashboard on <http://IP-Address/nagios/>

Authenticate with username and password added earlier.

```
Username: nagiosadmin
Password: ****
```

You should see Nagios Dashboard where you can add devices to be monitored.

